

REMARKS

Claims 1-31 are pending. Claims 1-3, 5, 8-16, 19-22, and 25-27 are rejected under 35 U.S.C. § 102(a). Claims 4, 6-7, 17-18, 23-24, and 28-29 are rejected under 35 U.S.C. § 103(a). Claims 1, 14, 16, 19, and 25 have been amended. New claims 30-31 have been added.

Independent claims 1, 19, and 25 are rejected as being anticipated by Anderson et al. (U.S. Pat. No. 5,937,002) under 35 U.S.C. § 102(a). Claim 1, as amended, recites "A method of controlling wireless communication from a first device to a *second device arranged to receive a plurality of frequencies* via a wireless communication link according to a predetermined frequency hopping pattern, comprising: *obtaining communication quality information* provided by one of said frequencies; *selecting a frequency and not selecting another frequency from the plurality of frequencies* on which to transmit a selected communication to the second device in response to the communication quality information; and transmitting the selected communication to the second device via the wireless communication link on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by the first device." (emphasis added).

The invention of claim 1 is directed to a method controlling wireless communication from a first device to a second device arranged to receive a plurality of frequencies according to a predetermined frequency hopping pattern. Referring to Figure 2 of the instant specification for example, communication from a first device (MASTER) to a second device (SLAVE 1) is illustrated over a plurality of frequencies f_1 - f_{24} in a predetermined frequency hopping pattern. A scheduler 16 (Figure 1) obtains communication quality information on lead 19 by, for example, sync word correlation, cyclic redundancy code verification, acknowledgement (ACK) or negative acknowledgement (NAK), or other means as described at page 10, line 11 through page 11, line 5 of the instant specification. The scheduler 16 selects a frequency and does not select another frequency from the plurality of frequencies on which to transmit a selected communication to the second device in response to the communication quality information as described at page 11, lines

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7-14. The scheduler 16 transmits the first two packets (Figure 2) of communication data from the first device to the second device on frequencies f_1 and f_2 according to the communication quality information. (page 13, lines 14-18). This method is highly advantageous over methods of the prior art. The plurality of frequencies according to the predetermined frequency hopping pattern remains unchanged. The plurality of frequencies according to the predetermined frequency hopping pattern, therefore, are not transmitted to the second device. Thus, no delay time or transmit power is required to transmit or update a hop sequence list. The second device monitors each of the plurality of frequencies for communication data from the first device.

By way of comparison, Anderson et al. discloses generation of a hop sequence list at a base station. (col. 6, lines 19-22). This hop sequence list must then be transmitted to a mobile station via a control channel (col. 6, lines 26-29 and col. 13, lines 1-5). The hop sequence list is not predetermined but is calculated by the base station. Thus, Anderson et al. do not disclose "a second device arranged to receive a plurality of frequencies via a wireless communication link according to a predetermined frequency hopping pattern" as required by claims 1-24.

Alternatively, if the hop sequence list of Anderson et al. is taken as a plurality of frequencies according to a predetermined frequency hopping pattern, then Anderson et al. fail to disclose "selecting a frequency and not selecting another frequency from the plurality of frequencies on which to transmit a selected communication to the second device in response to the communication quality information" as required by claims 1-24. Once Anderson et al. determine a hop sequence list, it is transmitted to the mobile station. There is no further selecting and not selecting of frequencies from the hop sequence list. Thus applicant respectfully submits that claims 1-24, as amended, are patentable under 35 U.S.C. § 102(a).

Claim 19, as amended, recites "A frequency hopping wireless communication apparatus, comprising: *a wireless communications interface for communicating with a further frequency hopping wireless communication apparatus arranged to receive a plurality of frequencies via a wireless communication link according to a predetermined frequency hopping pattern*; a scheduler

for selecting a frequency from the plurality of frequencies on which to transmit a selected communication to the further apparatus, said scheduler including an input for receiving information indicative of communication quality provided by one of said frequencies, *said scheduler responsive to said information for selecting the frequency and not selecting another frequency from the plurality of frequencies on which to transmit the selected communication.*" (emphasis added).

Claim 25, as amended, recites "A frequency hopping wireless communication system, comprising: a first frequency hopping wireless communication device; a second frequency hopping wireless communication device for communication with said first device via a wireless communication link, *said second device arranged to receive a plurality of frequencies*; said second device including a wireless communications interface for *communicating with said first device via said wireless communication link on the plurality of frequencies according to a predetermined frequency hopping pattern*, and a scheduler for selecting from the frequency hopping pattern a frequency on which to transmit a selected communication to said first device, said scheduler including an input for receiving information indicative of communication quality provided by one of said frequencies, *said scheduler responsive to said information for selecting the frequency and not selecting another frequency from the plurality of frequencies on which to transmit the selected communication.*" (emphasis added).

As previously stated, Anderson et al. fail to disclose a second device receiving a plurality of frequencies according to a predetermined frequency hopping pattern or selecting a frequency and not selecting another frequency from the plurality of frequencies responsive to communication quality information as required by claims 19-29. Thus applicant respectfully submits that claims 19-29, as amended, are also patentable under 35 U.S.C. § 102(a).

Applicant has acknowledges the rejections of claims 4, 6-7, 17-18, 23-24, and 28-29 under 35 U.S.C. § 103(a), but considers them moot in view of the present amendment as discussed.

In view of the foregoing, applicants respectfully request reconsideration of claims 1-29 and allowance of claims 1-31. If the Examiner finds any issue that is unresolved, please call applicant's attorney by dialing the telephone number printed below.

Respectfully submitted,



Robert N. Rountree
Attorney for Applicant
Reg. No. 39,347

Robert N. Rountree, LLC
70360 Highway 69
Cotopaxi, CO 81223
Phone/Fax: (719) 783-0990

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